

What is Claimed is:

1. A roller skate comprising:  
a bifurcated chassis comprising first and second chassis halves, said first chassis half having an upper surface adapted to support a wearer's foot;  
a pair of foot-retaining wings mounted on either side of the chassis;  
front and rear axles mounted between the first and second chassis halves and configured to support wheels.
2. The skate of Claim 1, wherein the axles extend through angled slots in side walls of the chassis halves.
3. The skate of Claim 2, further comprising front and rear biasing elements configured to resiliently bias the front axle and rear axles respectively towards a position at a center of the slots.
4. The skate of Claim 3, wherein the biasing elements comprise front and rear torsion blocks made of a resilient material surrounding at least central portions of the front and rear axles.
5. The skate of Claim 4, further comprising at least one shock absorbing block sandwiched between one of the torsion blocks and the first chassis half.
6. The skate of Claim 1, wherein a lower surface of said second chassis half comprises apertures adapted to receive front and rear brake pads.
7. The skate of Claim 1, wherein said second chassis half has a lower surface adapted to receive a wear pad.
8. The skate of Claim 2, wherein the slots are angled at 30° relative to a plane intersecting the front and rear axles.
9. The skate of Claim 4, wherein the torsion blocks comprise first and second halves adapted to be assembled to form a single torsion block, each of said halves having a substantially planar face.
10. The skate of Claim 9, further comprising a pin extending through a transverse hole extending through each axle, and wherein the pin is positioned in the torsion block such that the pin is parallel to said face.
11. The skate of Claim 4, further comprising a pin extending through a transverse hole located substantially at a linear center of each axle.

12. The skate of Claim 11, wherein the pin comprises a longitudinal axis which is collinear with a pivot axis of the axle.

13. The skate of Claim 4, wherein the torsion blocks comprise prismatic bodies of a substantially resilient material.

14. The skate of Claim 4, wherein said torsion blocks are sandwiched between the first and second chassis halves.

15. The skate of Claim 5, wherein the shock absorber has a durometer of at least 35.

16. The skate of Claim 4, wherein the torsion blocks have a durometer of at least 35.

17. The skate of Claim 1, wherein the wheels are about 3 inches in diameter.

18. The skate of Claim 1, wherein the foot platform is less than about 5/8 inch above the front axle.

19. The skate of Claim 1, wherein the upper surface of the skate is less than about 3/4 inch above the rear axle.

20. The skate of Claim 1, wherein the wheels extend above the upper surface of the first chassis half.

21. The skate of Claim 1, wherein rear wheels are not aligned with front wheels.

22. The skate of Claim 1, wherein the chassis is molded plastic.

23. The skate of Claim 1, wherein the chassis comprises plurality of ribs on inner surfaces of each chassis half.

24. The skate of Claim 4, wherein the chassis comprises openings for receiving the torsion blocks.

25. The skate of Claim 1, wherein a toe portion of the first chassis half curves upward.

26. The skate of Claim 1, wherein the foot-retaining wings are made of EVA.

27. The skate of Claim 1, wherein the wings comprise a plurality of quick release straps.

28. A roller skate comprising:

a skate body having a top surface, a bottom surface, a front surface, a rear surface and a pair of side surfaces;

a front axle extending through the side surfaces at a front portion of the skate body, and a rear axle extending through the side surfaces at a rear portion of the skate body, the front and rear axles being positioned between the top and bottom surfaces of the skate body;

a plurality of wheels rotatably mounted to the axles;

wherein the skate is configured to turn in a desired direction as a wearer leans in said direction.

29. The system of Claim 28, wherein the front and rear axles extend through angled slots in the skate body, the slots being adapted to cause the front and rear axles to pivot about respective pivot axes as the skate body is leaned in a desired direction.

30. The system of Claim 28, wherein the axles are resiliently biased toward a position in which the skate will roll straight ahead.

31. The system of Claim 30, wherein at least one of the axles is resiliently biased by a resilient block surrounding at least a central portion of the at least one axle.

32. The system of Claim 31, wherein the resilient block comprises first and second halves with angled faces.

33. The system of Claim 32, further comprising a pin extending transversely through the axle surrounded by the resilient block.

34. The system of Claim 33, wherein a longitudinal axis of the pin is collinear with a pivot axis of the axle through which the pin extends.

35. The system of Claim 28, wherein the skate is substantially symmetrical as viewed from above.

36. A roller skate comprising:

a skate chassis comprising an upper surface, a lower surface, and a pair of side surfaces;

an axle extending through an angled slot in one of said side surface of said chassis, said slot having a first end, a second end, and a center;

a pair of wheels mounted to opposite ends of said axle; and

a biasing element adapted to bias the axle toward the center of said slot.

37. The skate of Claim 36, wherein the biasing element comprises a block of resilient material surrounding a portion of the axle.

38. A roller skate comprising:  
a platform adapted to support a street shoe;  
a plurality of wheels straddling the platform wherein tops of said wheels extend above said platform;  
retaining elements adapted to secure a street shoe on the platform, at least a portion of the street shoe being located between the wheels.
39. The roller skate of Claim 38, further comprising a grind pad removably mounted to the bottom surface of the platform.
40. The skate of Claim 39, wherein the grind pad has a concave bottom surface.
41. The skate of Claim 40, wherein the grind pad bottom surface is concave in two perpendicular directions.
42. The skate of Claim 38, wherein the retaining elements comprise guard portions configured to prevent a shoe of a wearer from contacting the wheels.
43. The roller skate of Claim 38, wherein said wheels having ground-engaging surfaces extending below said platform bottom surface by a distance of less than half a diameter of said wheels.
44. A roller skate wheel comprising:  
a wheel hub comprising a bearing hole, a hub ring and a capture ring;  
wherein the wheel hub comprises a space between the capture ring and the hub ring; and  
a tire made of a thermoplastic material molded over the hub ring and the capture ring, wherein the thermoplastic material extends into the space between the hub ring and the capture ring.
45. The wheel of Claim 44, wherein the thermoplastic material is a urethane material.
46. The wheel of Claim 44, wherein the wheel hub is made of a rigid thermoplastic material.
47. The wheel of Claim 46, wherein the wheel hub has glitter throughout the rigid thermoplastic material.

48. The wheel of Claim 47, wherein the tire is made of a clear urethane material, and wherein the glitter has the appearance of extending throughout the clear urethane material.

49. The wheel of Claim 44, wherein the bearing hole is surrounded by a bearing ring having an inner annular surface configured to receive a wheel bearing.

50. The wheel of Claim 44, wherein the bearing ring is connected to the hub ring by a plurality of radially-extending spokes.

51. The wheel of Claim 44, wherein the capture ring is attached to the hub ring by an annular rib.

52. The wheel of Claim 44, wherein the space comprises an annular space between a flange of the capture ring and the hub ring.

53. The wheel of Claim 52, wherein an annular portion of the molded tire is captured between the capture ring and a portion of the hub ring.

54. The wheel of Claim 53, wherein the annular rib has a width that is less than a width of the capture ring.

55. A roller skate wheel comprising:

a wheel hub;

a tire molded over the hub ring and the capture ring, wherein portions of the hub protrude into a material of the tire.

56. The wheel of Claim 55, further comprising a hub ring with an outer surface configured to receive the molded tire thereon.

57. The wheel of Claim 56, wherein the portions of the hub protruding into the material of the tire comprise an annular capture ring.

58. A method of making a skate wheel comprising:

injection molding a urethane material over a hub to form a wheel.

59. The method of Claim 58, wherein the urethane material is clear.

60. The method of Claim 58, further comprising injection molding the hub

61. The wheel of Claim 60, wherein the hub comprises a hub ring attached to a capture ring by an annular rib.

62. The wheel of Claim 61, further comprising molding said urethane material to form a tire with a portion that is captured between a portion of the capture ring and a portion of the hub ring.